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# 8-Way EZ Switcher

# INSTALLATION GUIDE



Figure 1. 8-Way EZ Switcher

## **Each Kit Includes:**

- 8Way EZ Switcher
- Up to 8 Game Board Interfaces (GBIs).
- Up to 8 40pin Ribbon cables
- Up to 8 6pin Power cables

#### **Features:**

- Supports up to 8 gameboards
- Only 1 game board is powered at a time.
- Games are switched by holding Game Switch Inputs for 1.5 seconds
- Supports 6 button inputs per player
- Supports up to 20 Amps on 5V
- -5V power is switched for each board
- Eliminates the need for awkward JAMMA extension harnesses.
- Save State Upon power-up, the switcher activates the gameboard that was last active

# **Mainboard Components:**

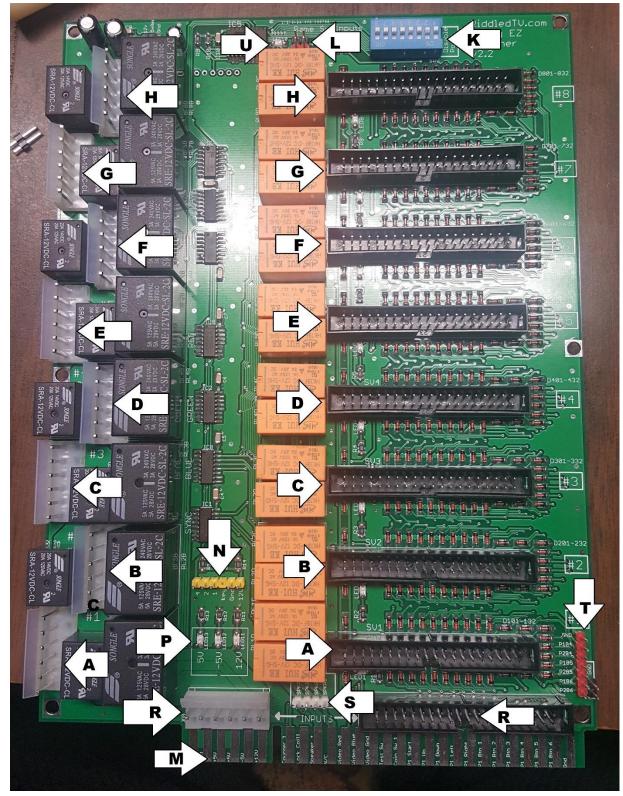


Figure 2 - Mainboard with indicators

- A. Power and Ribbon cable headers for Gameboard #1
- B. Power and Ribbon cable headers for Gameboard #2
- C. Power and Ribbon cable headers for Gameboard #3
- D. Power and Ribbon cable headers for Gameboard #4
- E. Power and Ribbon cable headers for Gameboard #5
- F. Power and Ribbon cable headers for Gameboard #6
- G. Power and Ribbon cable headers for Gameboard #7
- H. Power and Ribbon cable headers for Gameboard #8
- K. Dipswitches to disable unused game ports. Set disable switch to "ON" to disable the port.
- L. Game Switch Inputs. If jumpers are installed, players 1 and 2 start buttons (held for 1.5 sec) will switch to the next game.
- M. Jamma Connector. If your arcade cabinet is equipped with a Jamma harness it can be connected here. For other cabinets, use inputs marked "R"
- N. Daughterboard expansion port. (Auxiliary Relay board available at time of print. Other expansion daughterboards planned.)
- P. Power indicator LEDs. 12V, 5V, -5V (these only indicate presence of voltage, not accuracy of voltage levels)
- R. Power and ribbon connectors for other Cabinet Interfaces (besides Jamma). If an alternate power supply is used, it can be plugged into the 6pin connector. DO NOT connect more than 1 power supply at a time.
- S. Stereo Speaker connector. 1 or 2 speakers can be plugged directly into this port. Note these pins are directly connected to Jamma pins 10, L, M, 11 (in order L+, L-, R-, R+)
- T. Kick Harness connector. Buttons 4-6 for each player can be connected here. If your cabinet requires pins 27&e on the Jamma harness to be grounded, 2 jumpers can be placed across the lowest 2 pins. Note, grounding those 2 pins eliminates use of the button 6 for all gameboards.
- U. Blue LEDs. These illuminate when the game switch inputs are active. If both buttons are lit for 1.5seconds, the switcher will advance to the next active gameboard.

## **General Installation Instructions (for Jamma Cabinets)**:

- 1. Disconnect AC power.
- 2. Plug the Switcher into your existing JAMMA harness and mount in a suitable location.
- 3. Plug the power and ribbon cables for first gameboard into port 1.
- 4. Plug the gameboard interface to gameboard 1, and connect power and ribbon cables.
- 5. Repeat steps 3 and 4 for additional gameboards.
- 6. Double-check all your work.
- 7. Reconnect AC power, and turn the power on.
- 8. To advance to the next game hold down Player1-Start and Player2-Start buttons.

# **General Installation Instructions (for non-Jamma Cabinets)**:

- 1. Disconnect AC power.
- 2. Connect your Cabinet Interface into the Cabinet edge connector
- 3. Connect the 40pin ribbon cable and 6pin power cable between the Cabinet Interface and the 8Way EZ Switcher.
- 4. Plug the power and ribbon cables for first gameboard into port 1.
- 5. Plug the gameboard interface to gameboard 1, and connect power and ribbon cables.
- 6. Repeat steps 4 and 5 for additional gameboards.
- 7. Double-check all your work.
- 8. Reconnect AC power, and turn the power on.
- 9. To advance to the next game hold down Player1-Start and Player2-Start buttons.

#### **Switching Games:**

The default state when you receive your 8Way EZ Switcher is to have 2 jumpers installed on the Game Switch Inputs. If both jumpers are installed, the Game Switch Inputs are directly connected to Player 1-Start and Player 2-Start button inputs. To use alternate button inputs, remove the 2 jumpers, and connect two button inputs of your choice to the two terminals on the <u>left side</u> as shown in Figure 3. If only one input button is desired, connect it to BOTH <u>left side</u> pins. The Switcher will change games when both inputs are grounded for 1.5 seconds. If both Game Switch Input buttons are held down, it will continue to cycle through game boards in 1.5 second increments. LED10 and LED9 will illuminate when the game switch inputs are active (when a "low" signal is detected)

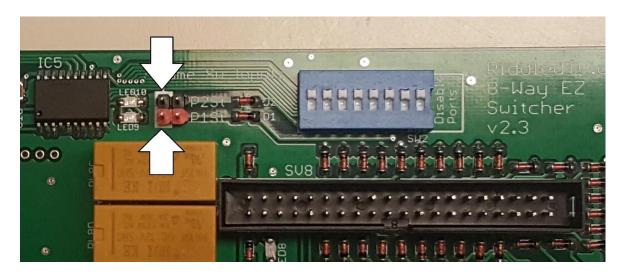


Figure 3. Button Inputs for Game Selection

# **Indicator lights**

The mainboard has 13 LED lights:

- 8x red LEDs Each gameboard interface port has a Red LED to indicate when that gameboard is active
- Red, Green, and Yellow LEDs indicate that voltage is present on the 5V, -5V, and 12V power supplies. They do <u>not</u> indicate the accuracy of those voltages.
- 2x Blue LEDs Indicate that 1 or both of the game switch inputs are active. If both blue lights are active for 1.5seconds, the switcher will advance to the next gameboard.

## **Daughterboard expansion:**

The Switcher allows expansion modules to be added to support additional game features. At the time of this printing, an Auxiliary Relay Board is available from RiddledTV.com. <u>With the power turned off</u>, connect the expansion module as indicated in its associated connection diagram. Take extra care to apply the plug's orientation the same on both ends. The expansion cable is keyed, and it cannot easily be plugged in upside. However, doublecheck that the cable is not installed off center, or reversed.

#### **Troubleshooting:**

My controls are not responding – JAMMA harness Ground wires fed from pins 27 & e of the gameboard: Several instances have been found where the JAMMA harness wiring uses pins 27, e as a grounding takeoff point for the control panel wiring. If your harness does this, the Switcher will not respond to any inputs from the control panel.

**The Switcher will not advance to the next game**: First, verify that you are holding down the game switch input buttons for at least 1.5 seconds. Secondly, you can verify that the switcher is receiving a signal to the game switch inputs be observing the blue LEDs located near the Game Switch Input pins. The blue LEDs will be illuminated anytime the Game Switch input buttons are pressed. If the LEDs are not illuminated, please recheck your wiring.

I have an issue that is not listed here: Please contact <u>8wayEZ@riddledtv.com</u> for assistance.

## **Equipment Failure or Repair Assistance:**

Please contact <u>8wayEZ@riddledtv.com</u> for repair assistance.